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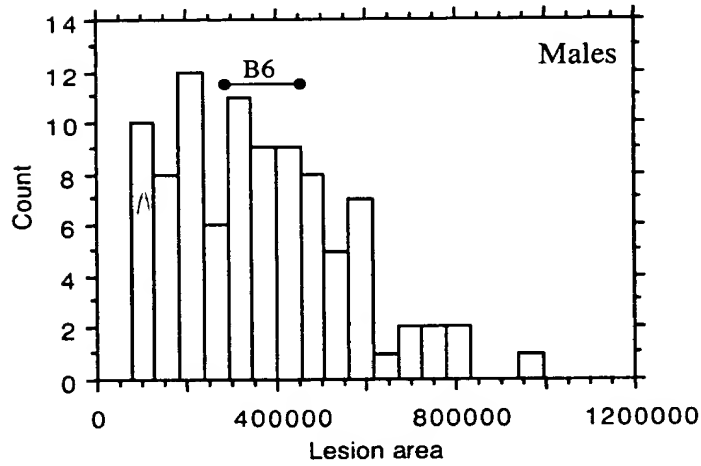
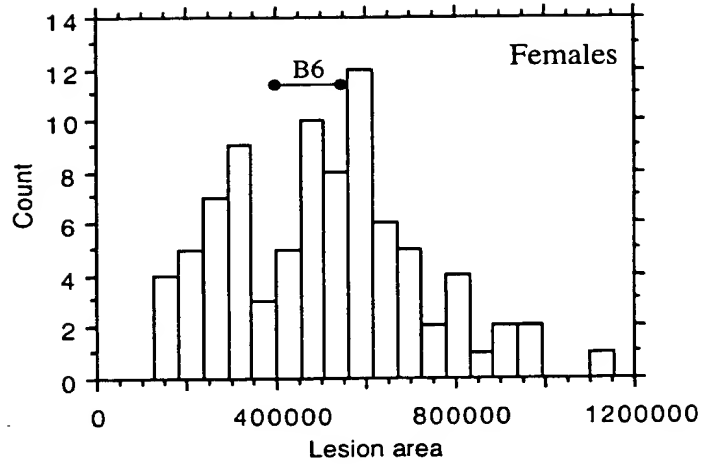


Figure 1

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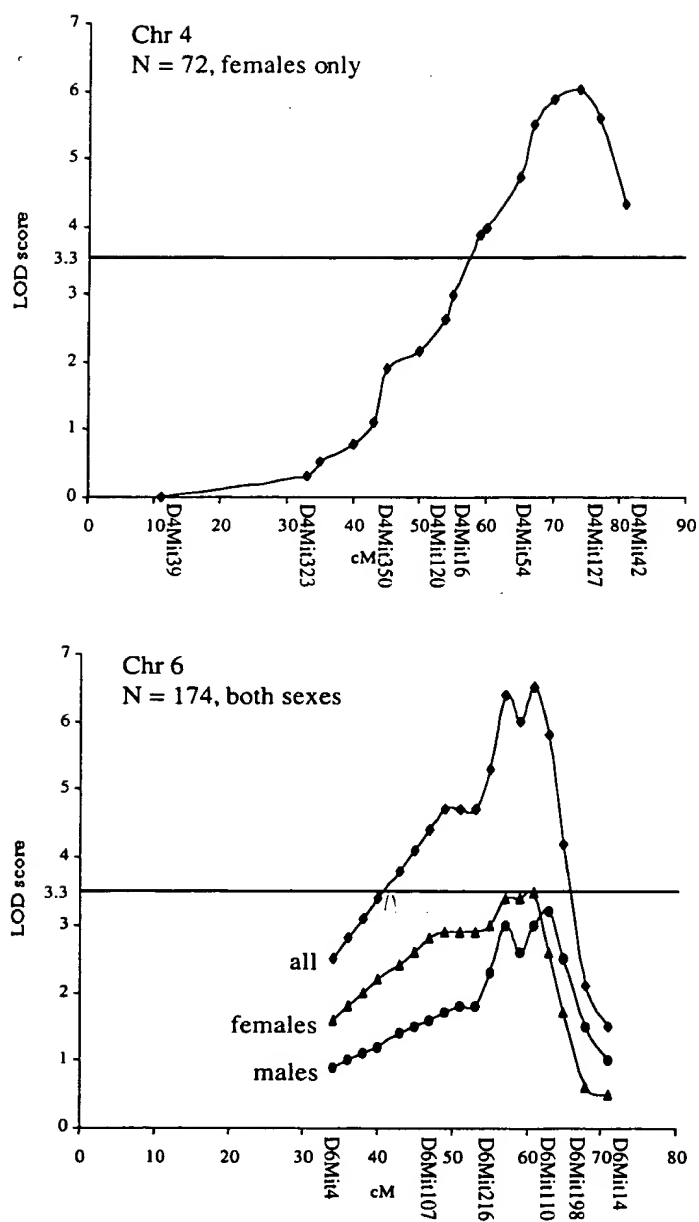


Figure 2

B-Isoform 1	1	ATGACTTTTG	ATGACAAGAT	GAAGCCTGCG	AATGACGAGC	CTGATCAGAA
M-Isoform 1	1	ATGACTTTTG	ATGACAAGAT	GAAGCCTGCG	AATGACGAGC	CTGATCAGAA
Isoform 7	1	ATGACTTTTG	ATGACAAGAT	GAAGCCTGCG	AATGACGAGC	CTGATCAGAA
Isoform 8	1	ATGACTTTTG	ATGACAAGAT	GAAGCCTGCG	AATGACGAGC	CTGATCAGAA
Isoform 9	1	ATGACTTTTG	ATGACAAGAT	GAAGCCTGCG	AATGACGAGC	CTGATCAGAA

B-Isoform 1	51	GTCATGTGGC	AAGAAGCCTA	AAGGTCTGCA	TTTGCTTTCT	TCCCCATGGT
M-Isoform 1	51	GTCATGTGGC	AAGAAGCCTA	AAGGTCTGCA	TTTGCTTTCT	TCCCCATGGT
Isoform 7	51	GTCATGTGGC	AAGAAGCCTA	AAG-----	-----	-----
Isoform 8	51	GTCATGTGGC	AAGAAGCCTA	AAG-----	-----	-----
Isoform 9	51	GTCATGTGGC	AAGAAGCCTA	AAG-----	-----	-----

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B-Isoform 1	101	GGTTCCCTGC	TGCTATGACT	CTGGTCATCC	TCTGCCTGGT	GTTGTCAGTG
M-Isoform 1	101	GGTTCCCTGC	TGCTATGACT	CTGGTCATCC	TCTGCCTGGT	GTTGTCAGTG
Isoform 7	73	-----	-----	-----	-----	-----
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

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TM

B-Isoform 1	151	ACCCTTATTG	TACAGTGGAC	ACAATTACGC	CAGGTATCTG	ACCTCTTAAA
M-Isoform 1	151	ACCCTTATTG	TACAGTGGAC	ACAATTACGC	CAGGTATCTG	ACCTCTTAAA
Isoform 7	73	-----	-----	-----	-----	-----
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

TM

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B-Isoform 1	201	ACAATACCAA	GCGAACCTTA	CTCAGCAGGA	TCGTATCCTG	GAAGGGCAGA
M-Isoform 1	201	ACAATACCAA	GCGAACCTTA	CTCAGCAGGA	TCGTATCCTG	GAAGGGCAGA
Isoform 7	73	-----	-----	-----	-----	-----
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

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B-Isoform 1	251	TGTTAGCCCA	GCAGAAGGCA	GAAAACACTT	CACAGGAATC	AAAGAAGGAA
M-Isoform 1	251	TGTTAGCCCA	GCAGAAGGCA	GAAAACACTT	CACAGGAATC	AAAGAAGGAA
Isoform 7	73	-----	-----	-----	-----	-----
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

|<--- 1st repeat

B-Isoform 1	301	CTGAAAGGAA	AGATAGACAC	CCTCACCCAG	AAGCTGAACG	AGAAATCCAA
M-Isoform 1	301	CTGAAAGGAA	AGATAGACAC	CCTCACCCAG	AAGCTGAACG	AGAAATCCAA
Isoform 7	73	-----	-----	-----	-----	-----
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

1st repeat

Figure 3A

B-Isoform 1	351	AGAGCAGGAG	GAGCTTCTAC	AGAAGAATCA	GAACCTCCAA	GAAGCCCTGC
M-Isoform 1	351	AGAGCAGGAG	GAGCTTCTAC	AGAAGAATCA	GAACCTCCAA	GAAGCCCTGC
Isoform 7	73	-----	-----	-----	-----	-----
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

1st repeat

B-Isoform 1	401	AAAGAGCTGC	AAACTCTTCA	GAGGAGTCCC	AGAGAGAACT	CAAGGGAAAAG
M-Isoform 1	401	AAAGAGCTGC	AAACTCTTCA	GAGGAGTCCC	AGAGAGAACT	CAAGGGAAAAG
Isoform 7	73	-----	-----	-AGGAGTCCC	AGAGAGAACT	CAAGGGAAAAG
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

1st repeat --->|<---

B-Isoform 1	451	ATAGACACCA	TCACCCGGAA	GCTGGACGAG	AAATCCAAAG	AGCAGGAGGA
M-Isoform 1	451	ATAGACACCA	TCACCCGGAA	GCTGGACGAG	AAATCCAAAG	AGCAGGAGGA
Isoform 7	102	ATAGACACCA	TCACCCGGAA	GCTGGACGAG	AAATCCAAAG	AGCAGGAGGA
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

2nd repeat

B-Isoform 1	501	GCTTCTGCAG	ATGATTCAGA	ACCTCCAAGA	AGCCCTGCAG	AGAGCTGCAA
M-Isoform 1	501	GCTTCTGCAG	ATGATTCAGA	ACCTCCAAGA	AGCCCTGCAG	AGAGCTGCAA
Isoform 7	152	GCTTCTGCAG	ATGATTCAGA	ACCTCCAAGA	AGCCCTGCAG	AGAGCTGCAA
Isoform 8	73	-----	-----	-----	-----	-----
Isoform 9	73	-----	-----	-----	-----	-----

2nd repeat

B-Isoform 1	551	ACTCTTCAGA	GGAGTCCCAG	AGAGAACTCA	AGGGAAAGAT	AGACACCCTC
M-Isoform 1	551	ACTCTTCAGA	GGAGTCCCAG	AGAGAACTCA	AGGGAAAGAT	AGACACCCTC
Isoform 7	202	ACTCTTCAGA	GGAGTCCCAG	AGAGAACTCA	AGGGAAAGAT	AGACACCCTC
Isoform 8	73	-----A	GGAGTCCCAG	AGAGAACTCA	AGGGAAAGAT	AGACACCCTC
Isoform 9	73	-----	-----	-----	-----	-----

2nd ---->|<----

3rd repeat

B-Isoform 1	601	ACCTTGAAGC	TGAACGAGAA	ATCCAAAGAG	CAGGAGGAGC	TTCTACAGAA
M-Isoform 1	601	ACCTTGAAGC	TGAACGAGAA	ATCCAAAGAG	CAGGAGGAGC	TTCTACAGAA
Isoform 7	252	ACCTTGAAGC	TGAACGAGAA	ATCCAAAGAG	CAGGAGGAGC	TTCTACAGAA
Isoform 8	114	ACCTTGAAGC	TGAACGAGAA	ATCCAAAGAG	CAGGAGGAGC	TTCTACAGAA
Isoform 9	73	-----	-----	-----	-----	-----

3rd repeat

B-Isoform 1	651	GAATCAGAAC	CTCCAAGAAG	CCCTGCAAAG	AGCTGCAAAC	TTTTCAGGTC
M-Isoform 1	651	GAATCAGAAC	CTCCAAGAAG	CCCTGCAAAG	AGCTGCAAAC	TTTTCAGGTC
Isoform 7	302	GAATCAGAAC	CTCCAAGAAG	CCCTGCAAAG	AGCTGCAAAC	TTTTCAGGTC
Isoform 8	164	GAATCAGAAC	CTCCAAGAAG	CCCTGCAAAG	AGCTGCAAAC	TTTTCAGGTC
Isoform 9	73	-----	-----	-----	-----	-----GTC

3rd repeat

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Figure 3B

B-Isoform 1	701	CTTGTCCACA	AGACTGGCTC	TGGCATAAAG	AAAACTGTTA	CCTCTTCCAT
M-Isoform 1	701	CTTGTCCACA	AGACTGGCTC	TGGCATAAAG	AAAACTGTTA	CCTCTTCCAT
Isoform 7	352	CTTGTCCACA	AGACTGGCTC	TGGCATAAAG	AAAACTGTTA	CCTCTTCCAT
Isoform 8	214	CTTGTCCACA	AGACTGGCTT	TGGCATAAAG	AAAACTGTTA	CCTCTTCCAT
Isoform 9	75	CTTGTCCACA	AGACTGGCTC	TGGCATAAAG	AAAACTGTTA	CCTCTTCCAT
B-Isoform 1	751	GGGCCCTTTA	GCTGGGAAAA	AAACCGGCAG	ACCTGCCAAT	CTTTGGGTGG
M-Isoform 1	751	GGGCCCTTTA	GCTGGGAAAA	AAACCGGCAG	ACCTGCCAAT	CTTTGGGTGG
Isoform 7	402	GGGCCCTTTG	GCTGGGAAAA	AAACCGGCAG	ACCTGCCAAT	CTTTGGGTGG
Isoform 8	264	GGGCCCTTTA	GCTGGGAAAA	AAACCGGCAG	ACCTGCCAAT	CTTTGGGTGG
Isoform 9	125	GGGCCCTTTA	GCTGGGAAAA	AAACCGGCAG	ACCTGCCAAT	CTTTGGGTGG
B-Isoform 1	801	CCAGTTACTA	CAAATTAATG	GTGCAGATGA	TCTGACATTC	ATCTTACAAG
M-Isoform 1	801	CCAGTTACTA	CAAATTAATG	GTGCAGATGA	TCTGACATTC	ATCTTACAAG
Isoform 7	452	CCAGTTACTA	CAAATTAATG	GTGCAGATGA	TCTGACATTC	ATCTTACAAG
Isoform 8	314	CCAGTTACTA	CAAATTAATG	GTGCAGATGA	TCTGACATTC	ATCTTACAAG
Isoform 9	175	CCAGTTACTA	CAAATTAATG	GTGCAGATGA	TCTGACATTC	ATCTTACAAG
B-Isoform 1	851	CAATTTCCCA	TACCACCTCC	CCGTTCTGGA	TTGGATTGCA	TCGGAAGAAG
M-Isoform 1	851	CAATTTCCCA	TACCACCTCC	CCATTCTGGA	TTGGATTGCA	TCGGAAGAAG
Isoform 7	502	CAATTTCCCA	TACCACCTCC	CCATTCTGGA	TTGGATTGCA	TCGGAAGAAG
Isoform 8	364	CAATTTCCCA	TACCACCTCC	CCATTCTGGA	TTGGATTGCA	TCGGAAGAAG
Isoform 9	225	CAATTTCCCA	TACCACCTCC	CCATTCTGGA	TTGGATTGCA	TCGGAAGAAG
B-Isoform 1	901	CCTGGCCAAC	CATGGCTATG	GGAGAATGGA	ACTCCTTTGA	ATTTTCAATT
M-Isoform 1	901	CCTGGCCAAC	CATGGCTATG	GGAGAATGGA	ACTCCTTTGA	ATTTTCAATT
Isoform 7	552	CCTGGCCAAC	CATGGCTATG	GGAGAATGGA	ACTCCTTTGA	ATTTTCAATT
Isoform 8	414	CCTGGCCAAC	CATGGCTATG	GGAGAATGGA	ACTCCTTTGA	ATTTTCAATT
Isoform 9	275	CCTGGCCAAC	CATGGCTATG	GGAGAATGGA	ACTCCTTTGA	ATTTTCAATT
B-Isoform 1	951	CTTTAAGACC	AGGGGCGTTT	CTTTACAGCT	ATATTCATCA	GGCAACTGTG
M-Isoform 1	951	CTTTAAGACC	AGGGGCGTTT	CTTTACAGCT	ATATTCATCA	GGCAACTGTG
Isoform 7	602	CTTTAAGACC	AGGGGCGTTT	CTTTACAGCT	ATATTCATCA	AGCAACTGTG
Isoform 8	464	CTTTAAGACC	AGGGGCGTTT	CTTTACAGCT	ATATTCATCA	GGCAACTGTG
Isoform 9	325	CTTTAAGACC	AGGGGCGTTT	CTTTACAGCT	ATATTCATCA	GGCAACTGTG
B-Isoform 1	1001	CATACCTTCA	AGACGGAGCT	GTGTTGCTG	AAAACTGCAT	TCTAATTGCA
M-Isoform 1	1001	CATACCTTCA	AGACGGAGCT	GTGTTGCTG	AAAACTGCAT	TCTAATTGCA
Isoform 7	652	CATACCTTCA	AGACGGAGCT	GTGTTGCTG	AAAACTGCAT	TCTAATTGCA
Isoform 8	514	CATACCTTCA	AGACGGAGCT	GTGTTGCTG	AAAACTGCAT	TCTAATTGCA
Isoform 9	375	CATACCTTCA	AGACGGAGCT	GTGTTGCTG	AAAACTGCAT	TCTAATTGCA
B-Isoform 1	1051	TTCAGCATAT	GTCAGAAGAA	GACAAATCAT	TTGCAAATTT	AG-----
M-Isoform 1	1051	TTCAGCATAT	GTCAGAAGAA	GACAAATCAT	TTGCAAATTT	AG-----
Isoform 7	702	TTCAGCATAT	GTCAGAAGAA	GACAAATCAT	TTGCAAATTT	AG-----
Isoform 8	564	TTCAGCATAT	GTCAGAAGAA	GACAAATCAT	TTGCAAATTT	AG-----
Isoform 9	425	TTCAGCATAT	GTCAGAAGAA	GACAAATCAT	TTGCAAATTT	AG-----

Figure 3C

atg Met 1	act Thr	ttt Phe	gat Asp	gac Asp 5	aag Lys	atg Met	aag Lys	cct Pro	gcg Ala 10	aat Asn	gac Asp	gag Glu	cct Pro	gat Asp 15	cag Gln	48
aag Lys	tca Ser	tgt Cys	ggc Gly 20	aag Lys	aag Lys	cct Pro	aaa Lys	ggg Gly 25	ctg Leu	cat His	ttg Leu	ctt Leu	tct Ser 30	tcc Ser	cca Pro	96
tgg Trp	tgg Trp	ttc Phe 35	cct Pro	gct Ala	gct Ala	atg Met	act Thr 40	ctg Leu	gtc Val	atc Ile	ctc Leu	tgc Cys 45	ctg Leu	gtg Val	ttg Leu	144
tca Ser	gtg Val 50	acc Thr	ctt Leu	att Ile	gta Val	cag Gln 55	tgg Trp	aca Thr	caa Gln	tta Leu	cgc Arg 60	cag Gln	gta Val	tct Ser	gac Asp	192
ctc Leu 65	tta Leu	aaa Lys	caa Gln	tac Tyr	caa Gln 70	gcg Ala	aac Asn	ctt Leu	act Thr	cag Gln 75	cag Gln	gat Asp	cgt Arg	atc Ile	ctg Leu 80	240
gaa Glu	ggg Gly	cag Gln	atg Met	tta Leu 85	gcc Ala	cag Gln	cag Gln	aag Lys	gca Ala 90	gaa Glu	aac Asn	act Thr	tca Ser 95	cag Gln	gaa Glu	288
tca Ser	aag Lys	aag Lys	gaa Glu 100	ctg Leu	aaa Lys	gga Gly	aag Lys	ata Ile 105	gac Asp	acc Thr	ctc Leu	acc Thr	cag Gln 110	aag Lys	ctg Leu	336
aac Asn	gag Glu	aaa Lys 115	tcc Ser	aaa Lys	gag Glu	cag Gln	gag Glu 120	gag Glu	ctt Leu	cta Leu	cag Gln	aag Lys 125	aat Asn	cag Gln	aac Asn	384
ctc Leu	caa Gln 130	gaa Glu	gcc Ala	ctg Leu	caa Gln	aga Arg 135	gct Ala	gca Ala	aac Asn	tct Ser	tca Ser 140	gag Glu	gag Glu	tcc Ser	cag Gln	432
aga Arg 145	gaa Glu	ctc Leu	aag Lys	gga Gly	aag Lys 150	ata Ile	gac Asp	acc Thr	atc Ile	acc Thr 155	cgg Arg	aag Lys	ctg Leu	gac Asp	gag Glu 160	480
aaa Lys	tcc Ser	aaa Lys	gag Glu	cag Gln 165	gag Glu	gag Glu	ctt Leu	ctg Leu	cag Gln 170	atg Met	att Ile	cag Gln	aac Asn	ctc Leu 175	caa Gln	528
gaa Glu	gcc Ala	ctg Leu	cag Gln 180	aga Arg	gct Ala	gca Ala	aac Asn	tct Ser 185	tca Ser	gag Glu	gag Glu	tcc Ser 190	cag Gln	aga Arg	gaa Glu	576
ctc Leu	aag Lys	gga Gly 195	aag Lys	ata Ile	gac Asp	acc Thr	ctc Leu 200	acc Thr	ttg Leu	aag Lys	ctg Leu	aac Asn 205	gag Glu	aaa Lys	tcc Ser	624
aaa Lys	gag Glu 210	cag Gln	gag Glu	gag Glu	ctt Leu	cta Leu 215	cag Gln	aag Lys	aat Asn	cag Gln	aac Asn 220	ctc Leu	caa Gln	gaa Glu	gcc Ala	672

Figure 4A

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Isoform 1

ctg	caa	aga	gct	gca	aac	ttt	tca	ggg	cct	tgt	cca	caa	gac	tgg	ctc	720
Leu	Gln	Arg	Ala	Ala	Asn	Phe	Ser	Gly	Pro	Cys	Pro	Gln	Asp	Trp	Leu	
225					230					235					240	
tgg	cat	aaa	gaa	aac	tgt	tac	ctc	ttc	cat	ggg	ccc	ttt	agc	tgg	gaa	768
Trp	His	Lys	Glu	Asn	Cys	Tyr	Leu	Phe	His	Gly	Pro	Phe	Ser	Trp	Glu	
			245						250					255		
aaa	aac	cgg	cag	acc	tgc	caa	tct	ttg	ggg	ggc	cag	tta	cta	caa	att	816
Lys	Asn	Arg	Gln	Thr	Cys	Gln	Ser	Leu	Gly	Gly	Gln	Leu	Leu	Gln	Ile	
			260					265					270			
aat	ggg	gca	gat	gat	ctg	aca	ttc	atc	tta	caa	gca	att	tcc	cat	acc	864
Asn	Gly	Ala	Asp	Asp	Leu	Thr	Phe	Ile	Leu	Gln	Ala	Ile	Ser	His	Thr	
		275					280					285				
acc	tcc	cca	ttc	tgg	att	gga	ttg	cat	cgg	aag	aag	cct	ggc	caa	cca	912
Thr	Ser	Pro	Phe	Trp	Ile	Gly	Leu	His	Arg	Lys	Lys	Pro	Gly	Gln	Pro	
	290					295					300					
tgg	cta	tgg	gag	aat	gga	act	cct	ttg	aat	ttt	caa	ttc	ttt	aag	acc	960
Trp	Leu	Trp	Glu	Asn	Gly	Thr	Pro	Leu	Asn	Phe	Gln	Phe	Phe	Lys	Thr	
305				310						315					320	
agg	ggc	gtt	tct	tta	cag	cta	tat	tca	tca	ggc	aac	tgt	gca	tac	ctt	1008
Arg	Gly	Val	Ser	Leu	Gln	Leu	Tyr	Ser	Ser	Gly	Asn	Cys	Ala	Tyr	Leu	
				325				330						335		
caa	gac	gga	gct	gtg	ttc	gct	gaa	aac	tgc	att	cta	att	gca	ttc	agc	1056
Gln	Asp	Gly	Ala	Val	Phe	Ala	Glu	Asn	Cys	Ile	Leu	Ile	Ala	Phe	Ser	
			340					345					350			
ata	tgt	cag	aag	aag	aca	aat	cat	ttg	caa	att	tag					1092
Ile	Cys	Gln	Lys	Lys	Thr	Asn	His	Leu	Gln	Ile						
		355					360									

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102020:1558880

Figure 4B

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Isoform 2

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa ggt ctg cat ttg ctt tct tcc cca	96
Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro	
20 25 30	
tgg tgg ttc cct gct gct atg act ctg gtc atc ctc tgc ctg gtg ttg	144
Trp Trp Phe Pro Ala Ala Met Thr Leu Val Ile Leu Cys Leu Val Leu	
35 40 45	
tca gtg acc ctt att gta cag tgg aca caa tgatcgtatc ctggaagggc	194
Ser Val Thr Leu Ile Val Gln Trp Thr Gln	
50 55	
agatgttagc ccagcagaag gcagaaaaca cttcacagga atcaaagaag gaactgaaag	254
gaaagataga caccctcacc cagaagctga acgagaaatc caaagagcag gaggagcttc	314
tacagaagaa tcagaacctc caagaagccc tgcaaagagc tgcaaactct tcagaggagt	374
cccagagaga actcaaggga aagatagaca ccatcacccg gaagctggac gagaaatcca	434
aagagcagga ggagcttctg cagatgattc agaacctcca agaagccctg cagagagctg	494
caaactcttc agaggagtcc cagagagaac tcaagggaaa gatagacacc ctacacctga	554
agctgaacga gaaatccaaa gagcaggagg agcttctaca gaagaatcag aacctccaag	614
aagccctgca aagagctgca aacttttcag gtccttgctc acaagactgg ctctggcata	674
aagaaaactg ttacctcttc cgtggggccct ttactgggaa aaaagccggc agacctgcca	734
atctttgggt ggcagttact acaaattaat gggcagatg	773

1

1

Figure 5

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Isoform 3

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa ggt ctg cat ttg ctt tct tcc cca	96
Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro	
20 25 30	
tgg tgg ttc cct gct gct atg act ctg gtc atc ctc tgc ctg gtg ttg	144
Trp Trp Phe Pro Ala Ala Met Thr Leu Val Ile Leu Cys Leu Val Leu	
35 40 45	
tca gtg acc ctt att gta cag tgg aca caa tta cgc cag gta tct gac	192
Ser Val Thr Leu Ile Val Gln Trp Thr Gln Leu Arg Gln Val Ser Asp	
50 55 60	
ctc tta aaa caa tac caa gcg aac ctt act cag cag gat cgt atc ctg	240
Leu Leu Lys Gln Tyr Gln Ala Asn Leu Thr Gln Gln Asp Arg Ile Leu	
65 70 75 80	
gaa ggg cag atg tta gcc cag cag aag gca gaa aac act tca ccg caa	288
Glu Gly Gln Met Leu Ala Gln Gln Lys Ala Glu Asn Thr Ser Pro Gln	
85 90 95	
tca aag aag gaa ctg aaa gga aag ata gac acc ctc acc cag aag ctg	336
Ser Lys Lys Glu Leu Lys Gly Lys Ile Asp Thr Leu Thr Gln Lys Leu	
100 105 110	
aac gag aaa tcc aaa gag cag gag gag ctt cta cag aag aat cag aac	384
Asn Glu Lys Ser Lys Glu Gln Glu Glu Leu Leu Gln Lys Asn Gln Asn	
115 120 125	
ctc caa gaa gcc ctg caa aga gct gca aac tct tca gag gag tcc cag	432
Leu Gln Glu Ala Leu Gln Arg Ala Ala Asn Ser Ser Glu Glu Ser Gln	
130 135 140	
aga gaa ctc aag gga aag ata gac acc ctc acc ttg aag ctg aac gag	480
Arg Glu Leu Lys Gly Lys Ile Asp Thr Leu Thr Leu Lys Leu Asn Glu	11
145 150 155 160	
aaa tcc aaa gag cag	495
Lys Ser Lys Glu Gln	
165	

Figure 6

atg Met 1	act Thr	ttt Phe	gat Asp	gac Asp 5	aag Lys	atg Met	aag Lys	cct Pro	gcg Ala 10	aat Asn	gac Asp	gag Glu	cct Pro	gat Asp 15	cag Gln	48
aag Lys	tca Ser	tgt Cys	ggc Gly 20	aag Lys	aag Lys	cct Pro	aaa Lys	ggg Gly 25	ctg Leu	cat His	ttg Leu	ctt Leu	tct Ser 30	tcc Ser	cca Pro	96
tgg Trp	tgg Trp	ttc Phe 35	cct Pro	gct Ala	gct Ala	atg Met	act Thr 40	ctg Leu	gtc Val	atc Ile	ctc Leu	tgc Cys 45	ctg Leu	gtg Val	ttg Leu	144
tca Ser	gtg Val 50	acc Thr	ctt Leu	att Ile	gta Val	cag Gln 55	tgg Trp	aca Thr	caa Gln	tta Leu	cgc Arg 60	cag Gln	gta Val	tct Ser	gac Asp	192
ctc Leu 65	tta Leu	aaa Lys	caa Gln	tac Tyr	caa Gln 70	gcg Ala	aac Asn	ctt Leu	act Thr	cag Gln 75	cag Gln	gat Asp	cgt Arg	atc Ile	ctg Leu 80	240
gaa Glu	ggg Gly	cag Gln	atg Met	tta Leu 85	gcc Ala	cag Gln	cag Gln	aag Lys	gca Ala 90	gaa Glu	aac Asn	act Thr	tca Ser	cag Gln 95	gaa Glu	288
tca Ser	aag Lys	aag Lys	gaa Glu 100	ctg Leu	aaa Lys	gga Gly	aag Lys	ata Ile 105	gac Asp	acc Thr	ctc Leu	acc Thr	cag Gln 110	aag Lys	ctg Leu	336
aac Asn	gag Glu	aaa Lys 115	tcc Ser	aaa Lys	gag Glu	cag Gln	gag Glu 120	gag Glu	ctt Leu	cta Leu	cag Gln	aag Lys 125	aat Asn	cag Gln	aac Asn	384
ctc Leu	caa Gln 130	gaa Glu	gcc Ala	ctg Leu	caa Gln	aga Arg 135	gct Ala	gca Ala	aac Asn	ttt Phe	tca Ser 140	ggg Gly	cct Pro	tgt Cys	cca Pro	432
caa Gln 145	gac Asp	tgg Trp	ctc Leu	tgg Trp	cat His 150	aaa Lys	gaa Glu	aac Asn	tgt Cys	tac Tyr 155	ctc Leu	ttc Phe	cat His	ggg Gly	ccc Pro 160	480
ttt Phe	agc Ser	tgg Trp	gaa Glu	aaa Lys 165	aac Asn	cgg Arg	cag Gln	acc Thr	tgc Cys 170	caa Gln	tct Ser	ttg Leu	ggg Gly 175	ggc Gly	cag Gln	528
tta Leu	cta Leu	caa Gln	att Ile 180	aat Asn	ggg Gly	gca Ala	gat Asp	gat Asp 185	ctg Leu	aca Thr	ttc Phe	atc Ile	tta Leu 190	caa Gln	gca Ala	576
att Ile	tcc Ser	cat His 195	acc Thr	acc Thr	tcc Ser	cgg Pro	ttc Phe 200	tgg Trp	att Ile	gga Gly	ttg Leu	cat His 205	cgg Arg	aag Lys		621

Figure 7

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Isoform 5

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat gag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Glu	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa ggt ctg cat ttg ctt tct tcc cca	96
Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro	
20 25 30	
tgg tgg ttc cct gct gct atg act ctg gtc atc ctc tgc ctg gtg ttg	144
Trp Trp Phe Pro Ala Ala Met Thr Leu Val Ile Leu Cys Leu Val Leu	
35 40 45	
tca gtg acc ctt att gta cag tgg aca caa tgatcgtatc ctggaagggc	194
Ser Val Thr Leu Ile Val Gln Trp Thr Gln	
50 55	
agatgttagc ccagcagaag gcagaaaaca cttcacagga atcaaagaag gaactgaaag	254
gaaagataga caccctcacc cagaagctga acgactccaa agagcaggag gagctacacc	314
ccccccgaac ctccaagaag ccttgcaaag agctgcaaac tcttcagggtc cttgtccaca	374
agactggctc tggcataaag aaaactgtta cctcttccat gggcccttta gctgggaaaa	434
aaaccggcag acctgccaat ctttgggtgg gcagttacta caaattaatg gtgcagatga	494
tctgacattc atcttacaag caatttccca taccacctcc ccttcttgga ttggattgca	554
tgggaagaag cctggcaacc atgggtatgg gagaatggac ttctttgaat tttaattttt	614
aagacagggc gtttttacag tttttcataa ggacttgtga tacttagagg gctgggttcg	674
ttgaaatgat tctattgggt agcatgtaga aaaaaatt	711

A

A

Figure 8

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Isoform 6

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa ggt ctg cat ttg ctt tct tcc cca	96
Lys Ser Cys Gly Lys Lys Pro Lys Gly Leu His Leu Leu Ser Ser Pro	
20 25 30	
tgg tgg ttc cct gct gct atg act ctg gtc atc ctc tgc ctg gtg ttg	144
Trp Trp Phe Pro Ala Ala Met Thr Leu Val Ile Leu Cys Leu Val Leu	
35 40 45	
tca gtg acc ctt att gta cag tgg aca caa taggagtcctc agagagaact	192
Ser Val Thr Leu Ile Val Gln Trp Thr Gln	
50 55	
caaggggaaag atagacaccc tcaccttgaa gctgaacgag aaatccaaag agcaggagga	254
gcttctacag aagaatcaga acctccaaga agccctgcaa agagctgcaa acttttcagg	314
tccttgccca caagactggc tctggcataa agaaaactgt tacctcttcc atgggcccctt	374
tagctgggaa aaaaaccggc agacctgcca atctttgggt ggccagttac tacaaattaa	434
tgggtgcagat gatctgacat tcattcttaca agcaatttcc cataccacct ccccgttctg	494
gattggattg catcggaaga agcctggcca accatggcta tgggagaatg gaactccctt	554
gaattttcaa ttctttaaga ccaggggcgt ttctttacag ctatattcat caggcaactg	614
tgcataacctt caagacggac tgtgttcgct gaaaactgca ttctaattgc attcagcata	674
tgtcaaaaaga agacaaatca tttgcaaatt tagtgaatct aaagaat	721

Figure 9

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Isoform 7

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa gag gag tcc cag aga gaa ctc aag	96
Lys Ser Cys Gly Lys Lys Pro Lys Glu Glu Ser Gln Arg Glu Leu Lys	
20 25 30	
gga aag ata gac acc atc acc cgg aag ctg gac gag aaa tcc aaa gag	144
Gly Lys Ile Asp Thr Ile Thr Arg Lys Leu Asp Glu Lys Ser Lys Glu	
35 40 45	
cag gag gag ctt ctg cag atg att cag aac ctc caa gaa gcc ctg cag	192
Gln Glu Glu Leu Leu Gln Met Ile Gln Asn Leu Gln Glu Ala Leu Gln	
50 55 60	
aga gct gca aac tct tca gag gag tcc cag aga gaa ctc aag gga aag	240
Arg Ala Ala Asn Ser Ser Glu Glu Ser Gln Arg Glu Leu Lys Gly Lys	
65 70 75 80	
ata gac acc ctc acc ttg aag ctg aac gag aaa tcc aaa gag cag gag	288
Ile Asp Thr Leu Thr Leu Lys Leu Asn Glu Lys Ser Lys Glu Gln Glu	
85 90 95	
gag ctt cta cag aag aat cag aac ctc caa gaa gcc ctg caa aga gct	336
Glu Leu Leu Gln Lys Asn Gln Asn Leu Gln Glu Ala Leu Gln Arg Ala	
100 105 110	
gca aac ttt tca ggt cct tgt cca caa gac tgg ctc tgg cat aaa gaa	384
Ala Asn Phe Ser Gly Pro Cys Pro Gln Asp Trp Leu Trp His Lys Glu	
115 120 125	
aac tgt tac ctc ttc cat ggg ccc ttt ggc tgg gaa aaa aac cgg cag	432
Asn Cys Tyr Leu Phe His Gly Pro Phe Gly Trp Glu Lys Asn Arg Gln	
130 135 140	
acc tgc caa tct ttg ggt ggc cag tta cta caa att aat ggt gca gat	480
Thr Cys Gln Ser Leu Gly Gly Gln Leu Leu Gln Ile Asn Gly Ala Asp	
145 150 155 160	
gat ctg aca ttc atc tta caa gca att tcc cat acc acc tcc cca ttc	528
Asp Leu Thr Phe Ile Leu Gln Ala Ile Ser His Thr Thr Ser Pro Phe	
165 170 175	
tgg att gga ttg cat cgg aag aag cct ggc caa cca tgg cta tgg gag	576
Trp Ile Gly Leu His Arg Lys Lys Pro Gly Gln Pro Trp Leu Trp Glu	
180 185 190	
aat gga act cct ttg aat ttt caa ttc ttt aag acc agg ggc gtt tct	624
Asn Gly Thr Pro Leu Asn Phe Gln Phe Phe Lys Thr Arg Gly Val Ser	
195 200 205	
tta cag cta tat tca tca agc aac tgt gca tac ctt caa gac gga gct	672
Leu Gln Leu Tyr Ser Ser Ser Asn Cys Ala Tyr Leu Gln Asp Gly Ala	
210 215 220	
gtg ttc gct gaa aac tgc att cta att gca ttc agc ata tgt cag aag	720
Val Phe Ala Glu Asn Cys Ile Leu Ile Ala Phe Ser Ile Cys Gln Lys	
225 230 235 240	
aag aca aat cat ttg caa att tag	744
Lys Thr Asn His Leu Gln Ile	
245	

Figure 10

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Isoform 8

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa gag gag tcc cag aga gaa ctc aag	96
Lys Ser Cys Gly Lys Lys Pro Lys Glu Glu Ser Gln Arg Glu Leu Lys	
20 25 30	
gga aag ata gac acc ctc acc ttg aag ctg aac gag aaa tcc aaa gag	144
Gly Lys Ile Asp Thr Leu Thr Leu Lys Leu Asn Glu Lys Ser Lys Glu	
35 40 45	
cag gag gag ctt cta cag aag aat cag aac ctc caa gaa gcc ctg caa	192
Gln Glu Glu Leu Leu Gln Lys Asn Gln Asn Leu Gln Glu Ala Leu Gln	
50 55 60	
aga gct gca aac ttt tca ggt cct tgt cca caa gac tgg ctt tgg cat	240
Arg Ala Ala Asn Phe Ser Gly Pro Cys Pro Gln Asp Trp Leu Trp His	
65 70 75 80	
aaa gaa aac tgt tac ctc ttc cat ggg ccc ttt agc tgg gaa aaa aac	288
Lys Glu Asn Cys Tyr Leu Phe His Gly Pro Phe Ser Trp Glu Lys Asn	
85 90 95	
cgg cag acc tgc caa tct ttg ggt ggc cag tta cta caa att aat ggt	336
Arg Gln Thr Cys Gln Ser Leu Gly Gly Gln Leu Leu Gln Ile Asn Gly	
100 105 110	
gca gat gat ctg aca ttc atc tta caa gca att tcc cat acc acc tcc	384
Ala Asp Asp Leu Thr Phe Ile Leu Gln Ala Ile Ser His Thr Thr Ser	
115 120 125	
cca ttc tgg att gga ttg cat cgg aag aag cct ggc caa cca tgg cta	432
Pro Phe Trp Ile Gly Leu His Arg Lys Lys Pro Gly Gln Pro Trp Leu	
130 135 140	
tgg gag aat gga act cct ttg aat ttt caa ttc ttt aag acc agg ggc	480
Trp Glu Asn Gly Thr Pro Leu Asn Phe Gln Phe Phe Lys Thr Arg Gly	
145 150 155 160	
gtt tct tta cag cta tat tca tca ggc aac tgt gca tac ctt caa gac	528
Val Ser Leu Gln Leu Tyr Ser Ser Gly Asn Cys Ala Tyr Leu Gln Asp	
165 170 175	
gga gct gtg ttc gct gaa aac tgc att cta att gca ttc agc ata tgt	576
Gly Ala Val Phe Ala Glu Asn Cys Ile Leu Ile Ala Phe Ser Ile Cys	
180 185 190	
cag aag aag aca aat cat ttg caa att tag	606
Gln Lys Lys Thr Asn His Leu Gln Ile	
195 200	

Figure 11

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Isoform 9

atg act ttt gat gac aag atg aag cct gcg aat gac gag cct gat cag	48
Met Thr Phe Asp Asp Lys Met Lys Pro Ala Asn Asp Glu Pro Asp Gln	
1 5 10 15	
aag tca tgt ggc aag aag cct aaa ggt cct tgt cca caa gac tgg ctc	96
Lys Ser Cys Gly Lys Lys Pro Lys Gly Pro Cys Pro Gln Asp Trp Leu	
20 25 30	
tgg cat aaa gaa aac tgt tac ctc ttc cat ggg ccc ttt agc tgg gaa	144
Trp His Lys Glu Asn Cys Tyr Leu Phe His Gly Pro Phe Ser Trp Glu	
35 40 45	
aaa aac cgg cag acc tgc caa tct ttg ggt ggc cag tta cta caa att	192
Lys Asn Arg Gln Thr Cys Gln Ser Leu Gly Gly Gln Leu Leu Gln Ile	
50 55 60	
aat ggt gca gat gat ctg aca ttc atc tta caa gca att tcc cat acc	240
Asn Gly Ala Asp Asp Leu Thr Phe Ile Leu Gln Ala Ile Ser His Thr	
65 70 75 80	
acc tcc cca ttc tgg att gga ttg cat cgg aag aag cct ggc caa cca	288
Thr Ser Pro Phe Trp Ile Gly Leu His Arg Lys Lys Pro Gly Gln Pro	
85 90 95	
tgg cta tgg gag aat gga act cct ttg aat ttt caa ttc ttt aag acc	336
Trp Leu Trp Glu Asn Gly Thr Pro Leu Asn Phe Gln Phe Phe Lys Thr	
100 105 110	
agg ggc gtt tct tta cag cta tat tca tca ggc aac tgt gca tac ctt	384
Arg Gly Val Ser Leu Gln Leu Tyr Ser Ser Gly Asn Cys Ala Tyr Leu	
115 120 125	
caa gac gga gct gtg ttc gct gaa aac tgc att cta att gca ttc agc	432
Gln Asp Gly Ala Val Phe Ala Glu Asn Cys Ile Leu Ile Ala Phe Ser	
130 135 140	
ata tgt cag aag aag aca aat cat ttg caa att tag	468
Ile Cys Gln Lys Lys Thr Asn His Leu Gln Ile	
145 150 155	

Figure 12

A.

Isoform 1 (R1) ESKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANSSE
 Isoform 1 (R2) ESQRELKGKIDTITRKLDEKSKEQEELLQMIQNLQEALQRAANSSE
 Isoform 1 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 3 (R1) QSKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANSSE
 Isoform 3 (R3) ESQRELKGKIDTLTLKLNEKSKEQ...
 Isoform 4 (R1) ESKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 7 (R2) ESQRELKGKIDTITRKLDEKSKEQEELLQMIQNLQEALQRAANSSE
 Isoform 7 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 8 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 - - - - -

B.

Isoform 1 (R1) ESKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANSSE
 Isoform 3 (R1) QSKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANSSE
 Isoform 4 (R1) ESKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 - - - - -

C.

Isoform 1 (R2) ESQRELKGKIDTITRKLDEKSKEQEELLQMIQNLQEALQRAANSSE
 Isoform 7 (R2) ESQRELKGKIDTITRKLDEKSKEQEELLQMIQNLQEALQRAANSSE
 - - - - -

D.

Isoform 1 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 3 (R3) ESQRELKGKIDTLTLKLNEKSKEQ...
 Isoform 7 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 8 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 - - - - -

E.

Isoform 1 (R1) ESKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANSSE
 Isoform 1 (R2) ESQRELKGKIDTITRKLDEKSKEQEELLQMIQNLQEALQRAANSSE
 Isoform 1 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 3 (R1) QSKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANSSE
 Isoform 3 (R3) ESQRELKGKIDTLTLKLNEKSKEQ...
 Isoform 4 (R1) ESKKELKGKIDTLTQKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 7 (R2) ESQRELKGKIDTITRKLDEKSKEQEELLQMIQNLQEALQRAANSSE
 Isoform 7 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 Isoform 8 (R3) ESQRELKGKIDTLTLKLNEKSKEQEELLQKNQNLQEALQRAANFSG
 human ESENELKEMIETLARKLNEKSKEQMELHHQNLNLQETLKRVCNSA
 - - - - -

Figure 13

Probability of forming coiled coil structure

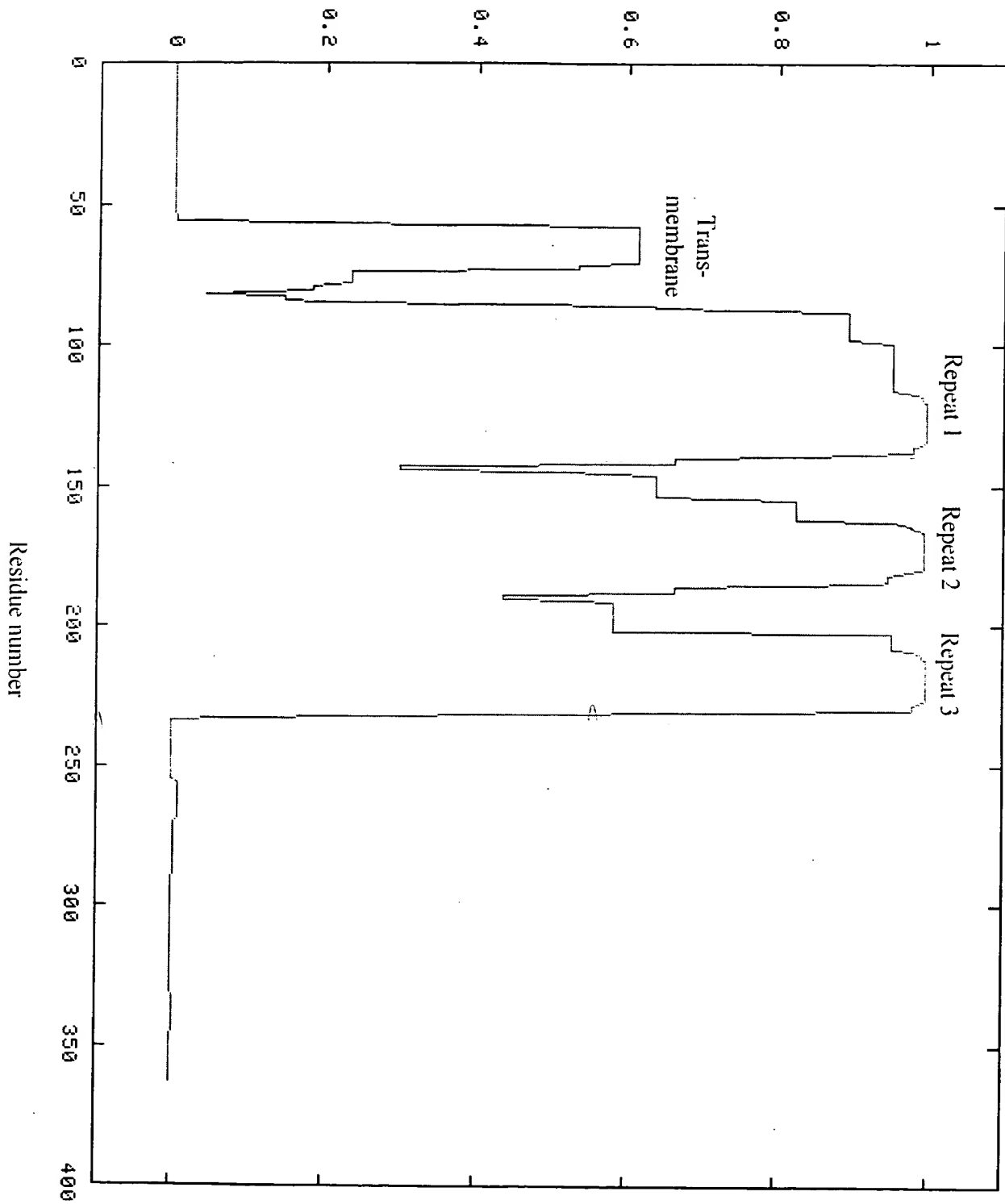


Figure 14